

TITLE: Device for measuring the intensity of an electric current

ABSTRACT

A magnetic field generated by a primary winding (1) in which the current ( $i_1$ ) to be measured flows is balanced by a magnetic field of opposing direction generated by a secondary winding (2) in which a compensating current ( $i_2$ ) flows. The device comprises a means (3) sensitive to the field resulting from the addition of said magnetic fields of opposing directions to regulate the compensating current ( $i_2$ ) in closed loop mode. According to the invention, the sensitive means (3) is sensitive only to the direction of the resultant field and, in return, controls the reversal of the direction of circulation of the compensating current ( $i_2$ ) in the secondary winding (2). This sensitive means (3) can be formed by a Hall effect probe with bipolar output signal.

Application to the measurement of a current in automotive electronics.

Figure for the abstract: single figure